In article <MPG.238b3491ef337cc798a534@news.giganews.com>,
 David Fanning <news@dfanning.com> wrote:

> Folks,
>
> I've had a couple of run-ins lately with NANs and I wonder
> why routines like TOTAL and MEAN don't have the NAN keyword
> set to 1 by default. Why does the user have to set it?
>
> I understand the argument that the NAN capability was
> added as an afterthought (or more likely when someone
> standardized the NAN bit pattern), and so the functionality
> was added as an optional addition that enhanced the function
> rather than changed it. But really...is there a reason
> why it is not the default now?
>
> One could argue, I suppose, that having a program stumble
> over a NAN alerts you to its presence in your data. That
> is useful, certainly. But, typically, once I add a NAN
> keyword to my code, I don't know (nor do I or care) if the
> argument has NANs. Is this lazy programming on my part?
>
> I am just wondering whether not setting the default value
> of the NAN keyword to 1 on routines like TOTAL, MEAN,
> et. al is the functional equivalent of not setting the
> default values of the COLOR and BITS_PER_PIXEL keywords
> to the PostScript device to something useful by default.
> That is, an act of negligence on the part of the
> manufacturer.
>
> What say you?
>
> Cheers,
>
> David

HI David,

I think they chose correctly and erred on the side of safety.

If I know there are Nans in my data, I'll take care of it.

If there are Nans in the data that I don't expect, I don't want to
have to set a keyword somewhere to find that out. That is, I don't

want IDL to automatically skip those Nans.

OTOH, I still find this to be frustrating and dangerous

IDL> PRINT, TOTAL(REPLICATE(!VALUES.F_NAN, 5), /NAN)
      0.00000

There are no valid numbers in the input vector, but TOTAL
returns a valid FLOAT. This makes the NAN keyword useless
in many situations.

Ken